



MEDICINES OPTIMISATION STRATEGY

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1. Introduction and Scope

Medicines management in hospital is defined as: '...the entire way that medicines are procured, delivered, prescribed, administered and reviewed to optimise the contribution that medicines make to producing informed and desired outcomes of patient care.'

Medicines optimisation is defined as 'a person-centred approach to safe and effective medicines use, to ensure people obtain the best possible outcomes from their medicines'.¹

Medicines optimisation comprises four guiding principles²:

- 1. Aim to understand the patient's experience
 - Ensure decisions are made jointly and that patients and their carers are knowledgeable about their medicines.
 - Provide support for patients at all points and across all interfaces of healthcare.
 - Ensure local decisions about medicines are robust, transparent and in accordance with the NHS Constitution.
 - Provide care that is integrated and personalised around the patient

2. Evidence based choice of medicines

- Ensuring optimal outcomes from medicines by implementing NICE guidance, evidence based practice and the rapid adoption of appropriate innovative treatments.
- Delivering value for money from medicines.
- Decisions about access to medicines are transparent and in accordance with the NHS constitution.
- Health professionals understanding their own responsibilities in optimising medicines use.
- 3. Ensure medicines use is as safe as possible
 - Avoiding harm from medicines e.g. avoiding admissions/readmissions.
 - Ensuring good medicines governance and the safe and secure use of medicines.
 - Learning from errors and incidents.
- 4. Make medicines optimisation part of routine practice and the responsibility of all individuals involved in the use of medicines, including the patient.

This strategy is based on the findings and recommendations made in several key national publications including NICE Guideline 5: Medicines Optimisation: the safe and effective use of medicines to enable the best possible outcomes and the associated Quality Standards; NHS Seven Day Services: Clinical Standards; NHS Long Term Plan and Lord Carter's Procurement and Efficiency Programme and Hospital Pharmacy and Medicines Optimisation.

2. Context

Medicines remain the most commonly used therapeutic intervention in the NHS¹

- NHS expenditure on medicines is second only to pay.
- 30-50% of medicines are not taken as intended; ten days after starting a new medicine 30% of patients will be non-adherent.
- Sub-optimal use of medicines leads to extensive waste in the system and lost opportunities in improving health and morbidity.
- Medication errors occur in up to 11% of prescriptions, mainly due to errors in dosage.
- 28-56% of adverse drug events are preventable with most preventable drug related injuries occurring as a result of error in use and not due to adverse drug reactions.
- Around 6.5% of all hospital admissions have been attributed to, or associated with, adverse drug reactions with up to two-thirds of these being preventable.
- Medicines related problems account for up to 38% of patients readmitted to hospital; most cases are preventable.
- The General Medical Council's (GMC's) EQUIP and PRACTICE studies report an unacceptable level of prescribing error across all grades of hospital doctors and GPs.
- Adverse drug reactions are particularly common among vulnerable groups; frail older patients living in nursing homes are particularly at risk.
- The Care Quality Commission (CQC) NHS Inpatient Survey found that many patients report receiving insufficient information about medicines they are asked to take.
- We find ourselves facing unprecedented change in terms of the patient demographic,
 NHS funding and the wider financial situation,

The consequences of poor medicines use can be summarized to include: clinical risk/harm; suboptimal clinical outcomes; poor patient experience; whole system inefficiency; unnecessary waste; financial risk; failure to meet national targets; and potential for significant reputational damage.

Hence the overarching aim for the Trust should be to improve the safety and outcomes achieved from the investment in and use of medicines by ensuring their utilisation in the most effective way.

This strategy document has been developed to reflect, directly and indirectly, all related national priorities, policies and plans such as: The Health and Social Care Act; The NHS Innovation, Health and Wealth Report; the Quality and Productivity challenge (QIPP); DH Operating Framework; Hackett Report on Medicines Homecare; Best Practice Standards for Managing Medicines Shortages; Royal Pharmaceutical Society Hospital Pharmacy Standards.

3. Where are we now?

3.1. Accountability

There are clear lines of accountability. The Chief Executive has overall accountability for medicines management. The Clinical Director of Pharmacy is directly accountable to the Chief Executive for this purpose and is also Aintree's Superintendent Pharmacist for the purposes of the General Pharmaceutical Council and the Accountable Officer (AO) for Controlled Drugs for both Liverpool University Hospitals and Walton.

Clinical governance issues relating to medicines are managed in the Trust through a number of different systems. These are:

- Trust Drugs & Therapeutics committee and its sub-groups, including:
 - Safer Medication Group who monitor medicines-related patient safety incidents to inform their learning in the Trust's use of medicines
 - Antimicrobial Stewardship Group which support the use of antibiotics in line with local policy through monthly antimicrobial point prevalence audits
- Trust Medicines Policy including standards for safe and secure medication storage, and handling and disposal procedures for all medicines across all wards and departments.
- Quarterly Controlled Drug audit and annual medicines storage audit
- Pan Mersey Area Prescribing Committee (APC) and its sub-groups, including the New Medicines Subgroup which ensures the managed entry of new drugs on to the regional formulary
- Pan Mersey APC joint formulary
- Outpatient antimicrobial therapy group
- Non-medical prescribing activities, including Patient Group Directions
- Product recall/defective medicines management systems
- Adverse drug reaction reporting
- Trust incident reporting and complaints systems
- Delivery of training to staff on safe medicines administration

Procedures are in place to ensure the above systems are reviewed on a regular basis.

3.2. Performance

By acquiring their pharmacy service through a SLA from neighbouring Aintree University Hospital, The Walton Centre benefit from the collaborative delivery of local infrastructure services. This enables more pharmacist resources to be utilised for direct medicines optimisation activities, including the utility of six pharmacist independent prescribers (55% of the pharmacist team). Collectively, the team attend an average of 82 ward/board rounds per month, supporting optimal, evidence based medicines use.³

The level of 'intelligence' about medicines management is good. A range of key performance and quality indicators are collected and presented internally and externally within the Trust; these demonstrate a general good level of assurance and performance. For example:

Measures show progress made in antibiotic stewardship (94% appropriate choice, 70% stop date recorded), medicines reconciliation on admission (at least 74.8% of patients have their medicines reconciled by a pharmacist within 24 hours of admission (although there is considerable variation

depending on whether the patient is admitted to the Trust during the working week or weekend); and formulary compliance (97.8% of medicines supplied are approved by the APC). Prescribers for inpatients (the majority of whom are junior doctors) document allergies on 99% of electronic prescriptions.

Assessments of medicines management include: those linked to CQC (Controlled Drugs Management; Provider Compliance Assessment); internal audit review of various processes; the annual medicines management ward storage audit and unannounced ward visits by Matrons.

Governance processes demonstrate regular review of medicine policies which reflect current best practice (although as mentioned above the challenge of embedding these in practice remains); implementation of National Patient Safety Agency Safety Alerts relating to medicines and an audit programme to assure ongoing compliance; and management of identified risks via the Trust's risk register process. An annual cost improvement programme ensures that those medicines utilised deliver the best value for money.

From a patient experience perspective, turnaround times for discharge prescriptions average 70 minutes. Pharmacy opening hours have been extended to include Saturday afternoon to ensure timely processing of discharge prescriptions.

One of the key challenges is to embed medicines optimisation into the culture of the organisation as a whole rather than it being 'a pharmacy thing'.

3.3. Innovation

The Trust has EPMA on all in patient wards except Critical Care. The pharmacy utilises web based portals (developed in-house) to identify and manage medicines related risk. A link has also been developed to automate the dispensing process which allows the department to be much more responsive to the needs of the patient and has made the dispensing process faster and safer. The pharmacy dispensing robot and Controlled Drug Omnicell automated supply dispensing cabinet help facilitate efficient management and storage of medication.

Outpatient prescription dispensing is managed by an outsourced pharmacy based on the Aintree Hospital site. This dedicated outpatient service was implemented to help reduce outpatient waiting times and enable the hospital pharmacy team to focus solely on inpatient care and the processing of inpatient and discharge medication.

The neurosciences pharmacist team has expanded to include a permanent lead homecare pharmacist to both enable increased numbers of patients to benefit from the more convenient delivery of specialist medicines and ensure those utilising the system receive a high quality, reliable service.

4. Where do we want to be?

There is a strong desire to build on our existing performance to ensure that each patient we care for receives the medicines and the support they need irrespective of location or time of presentation within the Trust. We want our patients to get the best out of the medicines that are prescribed for them. We will achieve this by giving them information, help and support; ensuring they have the opportunity to discuss their preferences and be supported to understand their options and make fully informed decisions about the medicines they receive (using decision aids where available) and the services used to provide them. Services will be designed around the patient with a view to providing safe, effective, high quality and cost effective medicines use. The aim is to optimise the patient experience, minimise risk of harm and ensure that patients feel

supported to realise the positive health benefits possible from the medicines that are prescribed for them.

We want to be part of a thriving health community that supports patients in this way in whichever part of the system they present. We want to be seen positively as helpful and willing partners by those we need to work closely with to achieve this (CCGs, individual GPs, other health organisations/agencies, social care organisations, community pharmacists and others). One of our measures of success will be how well we develop these relationships and how much we improve patient care through more effective collaboration and joint working.

Roles will be undertaken by staff who are well trained and competent. There will be an emphasis on teamwork with staff from different professional groups being trained together.

The prescribing, dispensing and administration of medicines can be very complex; it involves all clinical staff and almost every patient we care for. We want to make it easy for staff to do the right thing; each and every time. We will use technology, system design and skill mix to ensure that this can be achieved. Whenever staff make decisions about individual patients, they will have access to the necessary resources and/or support so that their decisions can be as informed as possible, including at weekends. We want people who are prescribed medication to be encouraged and empowered to identify and report medicines-related patient safety incidents.

As an informed organisation we recognise that mistakes do happen, but as a 'learning organisation' we will take every opportunity to learn from mistakes and near misses. This will inform decision making and those actions taken to prevent their recurrence. We will also build links with others and be informed by national reports to ensure that the learning process is not limited to what we experience within the Trust.

5. How will we get there?

Looking at each of the elements of Medicines Optimisation in turn, there are a number of strategic developments that will allow the Trust to build on the excellent progress already made and meet the efficiencies identified by Lord Carter's Procurement and Efficiency Programme and Hospital Pharmacy and Medicines Optimisation:

5.1. The patient experience

- a) Ensure policy and procedures are available that support staff to encourage and allow appropriate inpatient self-administration
- b) Maintain and where possible improve antimicrobial stewardship to reduce the rate of hospital acquired infection and optimise antibiotic use
- c) Determine what patients want/expect/know about their pharmacy team and respond to the findings

5.2. Ensure clinical and cost effective medicines choices

- Support implementation of NICE guidance/evidence based practice within the Trust
- Work with external groups (Pan Mersey APC and sub-groups, Betsi Cadwaladr University Health Board, Central & Eastern Cheshire Area Prescribing Group etc) to ensure cost effective choices are made and implemented. The appointment of a joint formulary pharmacist would enhance this work further (resource implication)
- Work with finance to ensure robust systems are in place and regularly reviewed to get full reimbursements from NHSE and CCGs for PBRe drugs and ensure the Trust maximises its income through the contracting process (resource implication)
- Maximise the use of patient's own medicines
- Reduce drug waste and re-use returned medicines. This would be an excellent invest to save opportunity
- Ensure purchasing of medicines makes full use of the local and regional contracting process

5.3. Ensure medicines use is as safe as possible / avoid harm

- Enhance the ward based pharmacy presence to allow the key pharmacy related Keogh recommendations (14 hour MDT review and Meds rec within 24 hours) to be delivered. Does not need to be 24 hour coverage but does need to be 7 day coverage (resource implication)
- Increase and extend the role of the technician workforce (medicines information to patients and carers, follow up patients, work with nurses to avoid missed doses and delayed doses, avoid administration errors, administer medicines) (resource implication)
- Minimise risk of harm/assess medicines choices by acting as a safety net- must have adequate coverage
- Ensure healthcare professionals are adequately trained in relevant aspects of medicines management
- Identify, report and learn from medicines related patient safety incidents. This needs to be facilitated by a dedicated Medicines Safety Officer (resource implication)
- Review the suitability of combination of medicines delivered by intrathecal infusion and transition the preparation of intrathecal pump medication to the aseptic department to ensure product sterility
- Seek to implement the electronic prescribing and medicines administration system on critical care instead of paper charts.
- Ensure high standards of medicines governance, safe and secure storage are maintained across the Trust

Use benchmarking data to develop services further

5.4. Ensure medicines optimisation is part of routine practice

This cannot just be the remit of pharmacy staff. All healthcare professionals involved in the use of medicines need to be aware of their part in the process. Pharmacy will raise awareness and promote the key principles but there needs to be Board level support for the process. The Trust Board will receive an annual report from the Director of Pharmacy on medicines optimisation.

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